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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------|----------------------|----------------------|---------------------|------------------|
| 10/622,295 | 07/17/2003 | Joel A. Drewes | MI22-2342 | 7253 |
| · 21567 | 7590 12/02/2004 | | EXAMINER | |
| | . JOHN P.S. | KIELIN, ERIK J | | |
| 601 W. FIRS | ST AVENUE, SUITE 130 | 0 | | |
| SPOKANE, WA 99201 | | | ART UNIT | PAPER NUMBER |
| , | • | | 2813 | |
| | | | | |

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | |
|---|--|--|--|--|--|
| | 10/622,295 | DREWES, JOEL A. | | | |
| Office Action Summary | Examiner | Art Unit | | | |
| | Erik Kielin | 2813 | | | |
| The MAILING DATE of this communication appeariod for Reply | ears on the cover sheet with the c | orrespondence address | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply if NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 66(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONED | nely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133). | | | |
| Status | | | | | |
| 1) Responsive to communication(s) filed on | | | | | |
| 2a) ☐ This action is FINAL . 2b) ☐ This | This action is FINAL. 2b) This action is non-final. | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | |
| 4) ☐ Claim(s) 1-54 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) 1-54 are subject to restriction and/or election requirement. | | | | | |
| Application Papers | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | |
| 11) The oath or declaration is objected to by the Ex | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | |
| Attachment(s) | | | | | |
| 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | | ate datent Application (PTO-152) | | | |

DETAILED ACTION

Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - Claims 1, 3-8, drawn to a method of forming a multi-layered coating on a substrate, classified in class 438, subclass 763.
 - II. Claims 9-25, drawn to drawn to a method of forming a multi-layered metallization, classified in class 438, subclass 622.
 - III. Claims 26-54, drawn to a method of forming a magnetic memory structure, classified in class 438, subclass 3.

The inventions are distinct, each from the other because of the following reasons:

- 2. Inventions I, II, and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility from II and III, such as a method of forming a planar interlayer dielectric. Invention II has separate utility from I and III, such as forming interconnect. Invention III has separate utility from I and III, such as forming a magnetic memory. See MPEP § 806.05(d).
- 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
- 4. Because these inventions are distinct for the reasons given above and the search required for each of Groups I, II, and III is different, restriction for examination purposes as indicated is proper.

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5. This application contains claims directed to the following patentably distinct species of the claimed invention:

Should Applicant elect any of Groups I, II, and III, then **one** from **each** of the following lettered groups A through E must also be elected:

- A. Number of layers over mass or block:
 - A-1. two layers
 - A-2. three layers
- B. First layer material
 - B-1. silicon dioxide
 - B-2. silicon nitride
 - B-3. silicon oxynitride
 - B-4. silicon carbide
 - B-5. silicon
 - B-6. carbon
- C. Second layer material
 - C-1. silicon dioxide
 - C-2. silicon nitride
 - C-3. silicon oxynitride
 - C-4. silicon carbide
 - C-5. silicon
 - C-6. carbon
- D. Third layer material (only applicable if A-2 is elected)
 - D-1. silicon dioxide
 - D -2. silicon nitride
 - D-3. silicon oxynitride
 - D-4. silicon carbide
 - D-5. silicon
 - D-6. carbon
- E. Metal in channel
 - E-1. nickel
 - E-2. iron
 - E-3. copper
- F. Number of materials in channel
 - F-1. one
 - F-2. two

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally

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held to be allowable. Currently, claim 1 is generic for Group I, claim 11 is generic for Group II, and claim 26 is generic for Group III.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. A telephone call was made to David Latwesen on 29 November 2004 to request an oral election to the above restriction requirement. Examiner indicated that the restriction requirement was complex and would prefer to mail a written restriction requirement. Dr. Latwesen indicated that a written restriction requirement would be fine.

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Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik Kielin whose telephone number is 571-272-1693. The examiner can normally be reached on 9:00 - 19:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erik Kielin

Primary Examiner November 29, 2004